UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,405	09/28/2001	Martin Van Der Zee	032927-017	2350

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EXAMINER
LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
2662	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

		Application No.	Applicant(s)	
Office Action Summary		09/964,405	VAN DER ZEE ET AL.	
		Examiner	Art Unit	
		Dmitry Levitan	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>28 September 2001</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-44</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>29-31, 33-36, 38, 41 and 44</u> is/are rejected.

7) ☒ Claim(s) <u>1-28, 32, 37, 39, 40 and 42</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>28 September 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Specification

1.   The disclosure is objected to because it contains an embedded hyperlink and/or other

form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or

other form of browser-executable code. See MPEP § 608.01.

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

3.   The disclosure is objected to, because abbreviations or acronyms L2CAP, HCI, L_CH,

SEQN, AUX, LMP, ARQN are cited throughout the specification without explanation. Applicant

should provide a full explanation for the acronyms at least at their first occurrence in the

specification.

Claim Objections

4.   Claims 1-28 and 44 are objected to because of the following informalities: claims 1 and

15 are unclear, because they list the step/function of assigning a first priority after the

step/function of transmitting the first set of segments. It is understood that the priority

assignment should occur before the transmission step. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

6.   Claims, 30-32, 43 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 30 is unclear, because "selectively delete the first set of segments from the first

storage means when reassembling the first data packet" it is not understood if the packets are

being reassembled and deleted at the same time or the packets which are intended for

reassembling are deleted.

Claim 31 recites the limitation "the second processing means" in line 3. There is

insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the number of subsets of segments" in line 3. There is

insufficient antecedent basis for this limitation in the claim.

Claim 43 is unclear, because it is not understood what is L_CH code.

Claim 44 is unclear, because it is not understood if claim 44 is an independent or

dependant claim and what limitations of claim 15 are considered the limitations for the claimed

transmitter.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (US

5,497,371) in view of Wang (US 6,327,625).

9.   Regarding claim 29, 30 (as best understood), Ellis substantially teaches the claims

limitations:

An apparatus for receiving data packets (destination card 36 on Fig. 2 and 4:67-5:7), comprising

Receiving means adapted to receive a first set of segments of a first data packet of said

data packets (inherently part of destination card 36, because destination card 36 receives

fragments of the first packet of low priority 8:1-32);

First storage means adapted to store the received first set of segments (buffers 42 and 44

on Fig. 2 storing fragments of the first low priority packet 5:1-5);

First processing means adapted to reassemble the first data packet from the stored first set

of segments (inherently part of destination card 36, because the received fragmented packets are

reassembled 5:1-5);

Wherein:

The first storage means is adapted to store a plurality of sets of segments (buffers 42 and

44 are adapted to receive numerous fragmented packets 4:55-65); and

The first processing means is adapted to delete a predetermined selection of segments of

the first set of segments prior to reassembling the first data packet, if a predetermined event

occurs (discarding low fragments of low priority segments, intended for the low priority packet

reassembly, based on the sequence field SEQ data 5:48-58).

Ellis does not teach deleting a predetermined selection of segments of the first set of

segments from the first storage means.

Wang teaches deleting a predetermined selection of segments of the first set of segments

from the first storage means (flushing the packets of particular type from the receive buffer when

the buffer approaches a fullness threshold 2:1-30).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add deleting a predetermined selection of segments of the first set of segments from

the first storage means of Wang to the system of Ellis to improve the system operation with

limited storage space, by avoiding the data overruns.

10.   Regarding claim 31, Ellis teaches the predetermined event as a reception of a

transmission failure notification by the receiver (received sequence field to determine that a

packet was skipped, interpreted as a failure notification 5:47-57) and deleting the stored

segments (see claim 29 rejection above).

11.   Claims 34-36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ellis.

12.   Regarding claims 34 and 38, Ellis teaches an apparatus for transmitting data packets

(source card 24 on Fig. 2 and 4:35-55), comprising:

First processing means adapted to divide a first data packet into a first set of segments

(inherently part of the source card 24, because packets are disassembled 4:35-40 and 8:1-

12);

Transmitting means adapted to transmit the first set of segments (inherently part of the

source card 24, because the fragments of low priority packets are transmitted 4:35-55);

and

Second processing means adapted to assign a first priority level to the first data packet

(priority encoder 30, emission control 34 and header generator 32 on Fig. 2 and 5:40-55

assigning low priority level),

Wherein:

The transmitting means are adapted to suspend the transmission of the first set of

segments being transmitted, to transmit a second data packet with a higher priority level

than the first data packet, and to resume the suspended transmission of the first set of

segments (suspending the low priority packet fragments to transmit packets with higher

priority and to resume the lower packets fragments transmission after 4:56-65), including

utilizing two or more levels of priority in the system 3:50-54.

Ellis does not teach segmenting a second data packet.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to segment a second packet with the third level of priority higher than low but lower

than high in the system of Ellis to improve the system operation with multiple priority levels,

utilizing three levels of priority as suggested by Ellis 5:32-42, wherein the lower level packets

are segmented/fragmented.

13.   Regarding claim 35, 36, Ellis teaches transmitting the second/highest set of segments

before resuming the suspended transmission of the first set of segments (emptying higher priority

transmission before restarting the lower priority transmission 4:55-65).

14.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of

Bluetooth specification (version 1.0B, November 1999).

Ellis substantially teaches the limitations of parent claim 34 (see rejection of claim 34 above).

Ellis does not teach sending a notification on the occurrence of transmission timeout event.

Bluetooth specification teaches sending a notification on the occurrence of transmission timeout

event (3.15 Timer events, notifying the recipient on the timer expiration).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add protocol of Bluetooth specification to the system of Ellis to improve the system

reliability by utilizing retransmission of the lost packets, controlled by timers.

Allowable Subject Matter

15.   Claims 1-28 would be allowable if rewritten or amended to overcome the objection set

forth in this Office action.

16.   Claim 32, 37, 39, 40 and 42 objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

17.   Claim 33 and 43 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of

the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dmitry Levitan
Patent Examiner.
09/09/05